

Kexun Niu

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Skills

- **Programming Languages:** Python, JavaScript, Typescript, Java, C#, SQL
- **Frameworks:** Django RESTful Framework, React, Basic Angular, Node.js, Express.js, Spring Boot
- **Databases:** PostgreSQL, SQLite, MongoDB
- **Testings:** Unit, Integration
- **Tools:** Postman, Bootstrap, Git Version Control, Docker, Kubernetes, AWS EC2, GCP
- **Soft Skills:** Communication, Collaboration, Self-driven

Education

Master of Engineering in Software Engineering

Sept 2023 – June 2024

Western University, London, Ontario

- CGPA: 3.7/4.0

Bachelor of Science in Computer Science

Sept 2019 – June 2023

University of Alberta, Edmonton, Alberta

Practical Experience

Pathfinder - Build Career Pathways Tools

Jan 2023 – Apr 2023

Skillcity Institute – Edmonton, AB

A platform would help young people build their career pathways for the future.

- Took over a pre-existing codebase, refactoring key modules to support new features like Job Application and Job Activity views, reducing API response time by **60%**.
- Developed comprehensive Django unit tests for existing and new endpoints, achieving **95% code coverage**.
- Set up a GitHub Actions CI/CD pipeline and deployed the web application using Docker.
- Managed **Agile** processes, including backlog refinement and sprint planning using GitHub Project Tool and Mkdocs, contributing **40%** to the project's completion.
- Created UML and Sequence Diagrams by LucidChart to map key workflows, estimated the velocity for each tasks and improving developer onboarding efficiency by **20%**.
- **Tech:** Python, Django RESTful framework, Django Unit Test, Docker

Projects

Social Distribution - Social Media Platform

Sep 2022 - Dec 2022

- Optimized ORM queries and introduced pagination, reducing API response times by **40%**.
- Implemented **JWT-based authentication** and token refresh to fix session expiry issues, enhancing security and user experience.
- Collaborated with cross-functional teams to establish seamless API integrations, improving data synchronization stability and reducing fetch errors by **75%**.
- Redesigned the user authentication flow and refined the UI using Bootstrap, conducting **multi-user testing** for improved usability.
- **Tech:** Python, Django, Django RESTful Framework, Bootstrap, JWT, Unit Test

Online Bookstore & Server-End - Online E-book Retailer

Sep 2023 - Dec 2023

- Designed a card-based layout for book listings, improving user navigation and browsing experience.
- Developed token refresh mechanisms to handle JWT expiration and added third-party authentication for seamless login.
- Enhanced CRUD operations to process bulk updates for **700 users in under 10 seconds**, improved system reliability.
- Implemented fuzzy search algorithms for Google Book API, increasing search accuracy by **70%** for partial title matches.
- Utilized Git for effective version management, implementing branching strategies to resolve merge conflicts and streamline collaboration within the development team.
- Tools Used: JavaScript, React, Bootstrap, Node.js, Express.js, Passport.js